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CRA

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Ms. Lesley Brunker (3HW23)
Remedial Project Manger
USEPA Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Dear Ms. Brunker:

Re: Comments on the Proposed Plan for Operable Unit 2
Limestone Road Site - Cumberland, Maryland

The Settlors and Conestoga-Rovers & Associates (CRA) have reviewed the Proposed Plan for Operable Unit 2 for the above captioned Site prepared by the United States Environmental Protection Agency (USEPA). The following comments on the Proposed Plan are being submitted on behalf of the Settlors, for USEPA's consideration in the preparation of the final Record of Decision (ROD) for the Site. In general, the Settlors agree that USEPA's proposed remedial action (Alternative 3 - waterline plus common elements) is the most appropriate remedial action of those proposed in light of the conditions at the Site. However, some specific issues require comment. These issues are presented in the following comments. The comments are organized by headings as presented in the Proposed Plan.

NATURE AND EXTENT OF CONTAMINATION

Groundwater

In November 1995 USEPA revised the No Observable Adverse Effect Level (NOAEL) for manganese to 10 milligrams per day (mg/day). Based on this revision, USEPA developed a revised health-based level for manganese of 840 micrograms per litre (µg/L). The previous health-based level for manganese was 200 µg/L. The Settlors and CRA believe that the revised health-based level is appropriate for use in the ROD.

The concentration of manganese in groundwater in the vicinity of the Site is above the revised health-based level. However, the Settlors and CRA maintain that the presence of manganese in the groundwater cannot be directly attributable to the Site. This is evidenced by the previously high background levels, the irregular distribution, and the

exceedances found at long distances from the Site with clean wells between the Site and the exceedances.

Streams

The statements made in this section of the Proposed Plan are understandably general in nature. However, they may be misleading to the public. It is agreed that prior to the construction of the Site caps, runoff from the Site may have contained contaminants which then entered the nearby streams. In addition, these streams also would receive runoff from other properties which are likely to contribute contaminants (e.g., the City Dump).

With respect to the stream contaminants cited in the Proposed Plan, it is noted that acenapthene was detected in stream sediment only once in 1985 at location SD-007. The sample location is approximately 0.25 miles downstream of the Diggs property boundary and approximately 0.4 miles from the disposal area on the Diggs property. Fluorine also was detected only once in the stream sediment in 1993 at sample location SD-094. This sample location is approximately 0.25 miles downstream of the Cumberland Cement & Supply Company (CC&SC) property boundary and approximately 0.5 miles from the disposal area on the CC&SC property. Neither of these compounds have been detected in the surface water.

SUMMARY OF SITE RISKS

Human Health Risk Assessment Conducted During the Supplemental Remedial Investigation/Supplemental Feasibility Study (SRI/SFS)

Based on the revised NOAEL for manganese, the reference dose (RfD) for this compound is now 0.024 milligrams per kilogram-day (mg/kg-day), as opposed to the previous RfD of 0.005 mg/kg-day. This change is the RfD will result in a decrease of the calculate hazard index (HI) due to manganese by a factor of 4.8. CRA has reviewed the calculated HI for the domestic wells summarized on Table 8.8 of the SRI Report. Fifteen of the 19 domestic wells examined during the risk assessment had an HI of greater than 1.0 with the previous RfD. Using the current RfD, only eight of the 19 domestic wells have an HI of greater than 1.0. While the use of the current RfD does not remove manganese as a contaminant of concern, its significance is substantially

reduced. The ROD should reflect the new reference dose for, and reduced risk from, manganese.

The statement with respect to the exceedance of lead in the domestic well is misleading. The exceedances of lead referred to occurred in only one sample collected at each of three of the 22 locations sampled. The lead concentrations determined from samples collected during the SRI/SFS at these three locations did not exceed the action level. Currently, there is only one well where the concentration of lead (18 µg/L) exceeds the action level.

SUMMARY OF REMEDIAL ALTERNATIVES

Common Elements of Alternatives 2 through 4

The applicable annual and present-worth costs for the monitoring programs should be added to the cost estimates presented for each alternative. The monitoring costs for the alternatives make up a significant portion of the annual and present worth costs. In addition, USEPA has assumed that the costs of the monitoring programs for each alternative are identical, and therefore will not affect the relative costs of the alternatives. As outlined below, the Settlors and CRA disagree with this assumption.

Groundwater Monitoring

The Proposed Plan indicates that the groundwater monitoring program for Alternatives 3 and 4 would be identical, and that groundwater monitoring for Alternative 2 would include the potentially affected water supply wells. Therefore, the monitoring cost for Alternative 2 would be substantially higher than the monitoring costs for Alternatives 3 and 4, illustrating why it is important to include the monitoring costs in the overall estimated costs.

The Settlors and CRA maintain that the collection and analyses of groundwater samples for up to five years is not required, considering the Interim Monitoring Program (IMP) currently in place. The current IMP began in 1994 and includes quarterly groundwater sampling for a minimum of two years, with subsequent review of monitoring frequency and parameters. Therefore, the long-term monitoring program for the remedial action should build upon the existing IMP, and not commence with up to five years of quarterly groundwater sampling as proposed in the Proposed Plan.

Ecological Monitoring

The Settlors and CRA maintain that there is no need for a surface water or sediment monitoring component in the long-term monitoring program for the Site. The interim remedy (i.e., Site caps and fencing) has eliminated the potential for rain water runoff from the Site to carry contaminants to the adjacent streams, and thereby has eliminated the source of surface water and sediment contaminants from the Site. Groundwater contribution to surface water will be monitored in the long-term monitoring program, and stream sampling should be required only if there is an observed degradation of groundwater quality that could potentially impact surface water quality.

EVALUATION OF ALTERNATIVES/SELECTION OF USEPA'S PREFERRED ALTERNATIVE

In addition to the benefits noted by USEPA, Alternative 3 (waterline plus common elements) could be implemented in the shortest time frame. The design and installation of waterlines are standard civil engineering practices, and therefore only review and approval by the appropriate local agency should be required to ensure their standards for a municipal water system are met. Detailed review of this component of the remedial action by the USEPA, the Army Corps of Engineers, or USEPA's oversight contractor would not be necessary. This also would reduce the overall cost of this alternative relative to Alternatives 2 and 4.

COMPARATIVE ANALYSIS OF ALTERNATIVES

Long-Term Effectiveness and Permanence

The Settlors and CRA suggest that USEPA consider the inclusion of language for Alternative 4 (pump and treat, waterline, plus common elements), to the effect that capture of contaminants by pumping from the aquifer would be difficult due to the fractured nature of the bedrock aquifer. Therefore, Alternative 4 may not be reliable over the long term.

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Should USEPA have any questions regarding the above comments, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Jack Michels

Jack Michels, P. Eng.

MGM/dm/3

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